

**WHAT IS CLAIMED IS:**

1. A vaccine composition which comprises: an immunogenically active component selected from the group consisting of inactivated or killed whole or  
5 subunit *E. coli* O157:H7, or mixtures thereof; a metabolizable oil adjuvant; and optionally a pharmaceutically acceptable carrier.
2. The composition according to claim 1 wherein the immunogenically active component is an inactivated whole or subunit *E. coli* O157:H7.
3. The composition according to claim 2 wherein the immunogenically  
10 active component is an inactivated whole *E. coli* O157:H7.
4. The composition according to claim 2 wherein the immunogenically active component is subunit *E. coli* O157:H7.
5. The composition according to claim 3 wherein the adjuvant comprises 0.1 to 50% vol/vol of the vaccine composition.
- 15 6. The composition according to claim 4 wherein the adjuvant comprises 0.1 to 50% vol/vol of the vaccine composition.
7. The composition according to claim 5 wherein the adjuvant comprises a metabolizable oil and aluminum hydroxide gel.
8. The composition according to claim 6 wherein the adjuvant comprises  
20 a metabolizable oil and aluminum hydroxide gel.
9. The composition according to claim 5 wherein the adjuvant comprises from 1 to 50% vol/vol of metabolizable oil.
10. The composition according to claim 6 wherein the adjuvant comprises from 1 to 50% vol/vol of metabolizable oil.
- 25 11. The composition according to claim 5 wherein the metabolizable oil is squalane.

12. The composition according to claim 6 wherein the metabolizable oil is squalane.

13. The composition according to claim 5 wherein the adjuvant further comprises one or more wetting agents and/or dispersing agents in an amount of from  
5 about 0.1 to 25% vol/vol of the adjuvant.

14. The composition according to claim 6 wherein the adjuvant further comprises one or more wetting agents and/or dispersing agents in an amount of from about 0.1 to 25% vol/vol of the adjuvant.

15. The composition of claim 13, wherein said wetting or dispersing  
10 agents are selected from the group consisting of non-ionic surfactants.

16. The composition of claim 14, wherein said wetting or dispersing agents are selected from the group consisting of non-ionic surfactants.

17. The composition of claim 17, wherein said non-ionic surfactants are selected from the group consisting of polyoxyethylene/polyoxypropylene block  
15 copolymers and polyoxyethylene esters.

18. The composition of claim 18, wherein said non-ionic surfactants are selected from the group consisting of polyoxyethylene/polyoxypropylene block copolymers and polyoxyethylene esters.

19. The composition according to claim 17 wherein said immunogenically  
20 active component is present in sufficient quantity to provide at least  $1 \times 10^9$  cells per unit dose.

20. A method for reducing shedding of *E. coli* O157 in an animal which comprises treatment of the animal with a composition according to claim 1.

21. A method according to claim 20 which further comprises treatment of  
25 the animal with a *Lactobacillus acidophilus* or neomycin medicated feed supplement.